



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,624	12/17/2003	Jobst U. Gellert	10984-1062	4053

54334 7590 08/23/2006

MOLD-MASTERS LIMITED  
233 ARMSTRONG AVENUE  
INTELLECTUAL PROPERTY DEPARTMENT  
GEORGETOWN, ON L7G-4X5  
CANADA

EXAMINER

HUSON, MONICA ANNE

ART UNIT PAPER NUMBER

1732

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/736,624

Applicant(s)

GELLERT ET AL.

Examiner

Monica A. Huson

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18,21-24 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-32 is/are allowed.
- 6) ☒ Claim(s) 18 and 21-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This office action is in response to the Amendment filed 8 June 2006.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U.S. Patent 4,108,956). Regarding Claim 18, Lee shows that it is known to carry out a method for controlling melt flow in an injection molding apparatus, the injection molding apparatus including a mold block defining a mold cavity and at least partially defining a gate passage to the mold cavity, a manifold and at least one nozzle defining a nozzle melt channel for transferring melt from a melt source to the gate passage (Figure 4), the method comprising providing a valve pin at the gate passage that is in an open position such that the valve pin is at least partially removed from the gate passage to permit melt flow through the gate passage, wherein the valve pin is positioned outside the nozzle melt channel in the open position (Figure 4, element 150); moving the valve pin to a closed position such that the valve pin enters the nozzle melt channel to stop the melt flow to the gate passage (Figure 5, element 150; Column 6, lines 31-36); solidifying melt immediately upstream of the valve pin to form a slug to create a seal between the melt surface and the gate passage (Column 6, lines 63-65); and removing the valve pin from the nozzle melt channel to return the valve pin to the open position after forming the seal

between the melt source and the gate passage (Column 6, line 68; Column 7, lines 1-3).

Regarding Claim 21, Lee shows the process as claimed as discussed above in the rejection of claim 18 above, including a method further comprising positioning the first and second mold plates in an ejection position after forming the seal between the melt source and the gate passage, wherein in the ejection position, the first and second mold plates are separated sufficiently for the ejection of the molded part from the mold cavity; and ejecting the molded part from the mold cavity (Column 6, lines 45-49).

Regarding Claim 22, Lee shows the process as claimed as discussed above in the rejection of claim 21 above, including a method further comprising the steps of positioning the first and second mold plates in a mold closed position after ejecting the molded part from the mold cavity, wherein in the mold closed position the first and second mold plates mate together to define the mold cavity (Column 6, lines 45-51); and heating the slug to liquefy the slug sufficiently to permit melt to flow into the gate passage and into the mold cavity (Column 6, lines 66-68; Column 7, lines 1-3).

Regarding Claim 23, Lee shows the process as claimed as discussed above in the rejection of claim 21 above, including a method further comprising the steps of positioning the first and second mold plates in a mold closed position after ejecting the molded part from the mold cavity, wherein in the mold closed position the first and second mold plates mate together to define the mold cavity (Column 6, lines 45-51); moving the valve pin to dislodge the slug from the nozzle melt channel (Column 6, lines 49-51); and heating the slug to liquefy the slug sufficiently to permit melt to flow into the gate passage and into the mold cavity upon removal of the valve pin from the nozzle melt channel (Column 6, lines 66-68; Column 7, lines 1-3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee. Lee does not specifically show using a plurality of mold cavities and a plurality of gate passages thereto. However, it is known that duplication of parts does not necessarily hold any patentable significance unless a new or unexpected result is produced (MPEP 2144.04 VI(B)). Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to apply Lee's methodical steps to an apparatus including plurality of mold cavities and a plurality of gate passages thereto in order to increase throughput time by making multiple articles simultaneously.

***Allowable Subject Matter***

Claims 30-32 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record neither teaches nor suggests the claimed method for controlling melt flow in an injection molding apparatus, especially a step including positioning a valve pin outside a nozzle melt channel in both an open position and a closed position.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

Applicant's arguments with respect to claims 18 and 21-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A. Huson whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 6:45am-3:15pm.

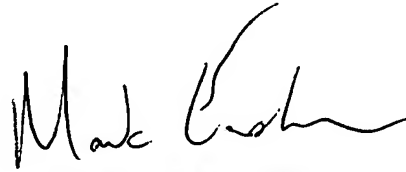
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monica A Huson

August 18, 2006



**MARK EASHOO, PH.D**  
**PRIMARY EXAMINER**

18/ Aug /06